

In the Claims

1 1. (Original) A security envelope, comprising:

2 a barcode in a two-dimensional symbology located on the security envelope, the
3 barcode encoding:

4 a public component, the public component comprising a public digital mail
5 identification and a digital signature signed by the sender encrypted by the private key of
6 the sender;

7 and

8 a private component, the private component comprising a private digital mail
9 identification and a digital signature signed by the sender encrypted by the public key of
10 the receiver.

1 2. (Original) The security envelope as in claim 1, where the two-dimensional
2 symbology is PDF-417.

1 3. (Original) The security envelope as in claim 2, wherein the barcode further
2 encodes return address information.

1 4. (Original) The security envelope as in claim 2, wherein the barcode further
2 encodes information relating to the physical characteristics of the security envelope.

1 5. (Original) The security envelope as in claim 4, wherein the information relating to
2 the physical characteristics of the security envelope include at least one of: (a) the date the
3 security envelope was sealed; (b) the size of the security envelope; and (c) the weight of the
4 security envelope.

1 6. (Original) The security envelope as in claim 2, wherein the barcode further
2 encodes stamp information.

1 7. (Original) The security envelope as in claim 2, wherein the security envelope
2 further comprises a physical authentication identification and wherein the barcode further
3 comprises a digital representation of the physical authentication identification.

1 8. (Original) The security envelope as in claim 7, where the physical authentication
2 identification comprises an optically clear epoxy with air bubbles suspended therein.

1 9. (Original) The security envelope as in claim 7, where the physical authentication
2 identification comprises a cloth made from non-woven 40 micron diameter polymer fibers.

1 10. (Original) A method for securing the mails, comprising:

2 (1) producing a digital mail identification that encodes physical identification
3 information of a security envelope into a barcode in a two-dimensional symbology; wherein the
4 digital mail identification comprises:

5 (a) a public component, the public component comprising a public digital
6 mail identification and a digital signature signed by the sender encrypted by the private
7 key of the sender;
8 and

9 (b) a private component, the private component comprising a private digital
10 mail identification and a digital signature signed by the sender encrypted by the public
11 key of the receiver;

12 (2) applying the digital mail identification to the security envelope.

1 11. (Original) The method as in claim 10, where the two-dimensional symbology is
2 PDF -417.

1 12. (Original) The method as in claim 11, wherein the physical identification
2 information comprises return address information.

1 13. (Original) The method as in claim 11, wherein the physical identification
2 information comprises information relating to the physical characteristics of the security
3 envelope.

1 14. (Original) The method as in claim 13, wherein the information relating to the
2 physical characteristics of the security envelope include at least one of:

3 (a) the date the security envelope was sealed;

4 (b) the size of the security envelope; and

5 (c) the weight of the security envelope.

1 15. (Original) The method as in claim 11, wherein the physical identification
2 information comprises stamp information.

1 16. (Original) The method as in claim 11, where the physical identification
2 information comprises an optically clear epoxy with air bubbles suspended therein.

1 17. (Original) The method as in claim 11, where the physical identification

2 information comprises a cloth made from non-woven 40 micron diameter polymer fibers.

1 18. (Currently Amended) The method as in claim 11, further comprising:
2 measuring the physical identification information;
3 decoding the digital mail identification; and
4 comparing the measured physical identification information with the decoded digital mail
5 identification.

1 19. (Original) The method as in claim 18, wherein at least one of the steps of (1)
2 measuring the physical identification information, and (2) decoding the digital mail
3 identification is accomplished using an optical scanner.

1 20. (Original) The method as in claim 19, wherein the step of comparing the
2 measured physical identification information with the decoded digital mail identification is
3 accomplished using a mobile computer.

1 21. (Original) The method as in claim 19, further comprising:
2 transmitting the measured physical identification information and the decoded digital
3 mail identification to a wired computer network via a wireless medium.

1 22. (Original) The method as in claim 21, wherein the wired computer network is
2 connected to the Internet and the transmitting the identification data to a wired computer network
3 via a wireless medium uses a TCP/IP protocol.

1 23. (Original) A system of securing the mails, comprising:

(1) at least one security envelope, comprising

(a) a barcode in a two-dimensional symbology located on the security envelope, the barcode encoding:

(i) a public component, the public component comprising a public digital mail identification and a digital signature signed by the sender encrypted by the private key of the sender; and

(ii) a private component, the private component comprising a private digital mail identification and a digital signature signed by the sender encrypted by the public key of the receiver;

(2) at least one mobile computer, comprising:

(a) a bar code reader;

(b) a physical authentication identifier reader;

(c) computer capable of comparing information obtained from the bar code reader and the physical authentication identifier reader;

(d) a database capable of storing at least one public key and at least one private key;

(e) a display; and

(f) a printer.

24. (Original) The system as in claim 23, where the two-dimensional symbology is PDF-417.

25. (Original) The system as in claim 24, where the at least one security envelope further comprises an optically clear epoxy with air bubbles suspended therein.

1 26. (Original) The system as in claim 24, where the at least one security envelope
2 further comprises a cloth made from non-woven 40 micron diameter polymer fibers.

1 27. (Original) The system as in claim 24, further comprising:
2 a wired computer network capable of communication with the at least one mobile
3 computers via a wireless medium.

1 28. (Original) The system as in claim 27, wherein the wired computer network is
2 connected to the Internet using a TCIP/IP protocol.